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REGION 4

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Oklahoma and Texas, except High Plains Area

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FOOD IS FIRST

By K. F. Warner

(The following article, which appeared in the June 1939 issue of the Extension Animal Husbandman, is reproduced here because it should be of general interest to all field personnel. It is obvious that the "live at home" principles enunciated in this article fit in well with a well rounded conservation program which encourages diversification.)

My sister, her husband and I were discussing farm problems around the brightly lighted, well-burdened reading table in their farm home. The talk had led to the need for cash and the inadequacy of current farm income - to the recent report of the National Resources Board which showed that over half the farm families in the United States received a gross income of less than $1,000 per year. With the positive hindsight of an average spectator, I had been propounding the need for a more self-sufficing type of agriculture. I had decried the swing toward a buying economy wherein farmers traded their work for cash, buying back their needs even to food and power.

Perhaps I had laid it on a little thick. Finally my sister asked:

"You think we should go back, then, - back to the spinning wheel and soap kettle, back to the wilderness?" (Sisters are like that). No answer was given to my sister's question then. It seemed to deserve something better than snap judgment. But I am ready to

answer it now and the answer is - "Yes. Farm families should go back, back to the principles of the pioneer. It is their best and safest way. For many it is the only way."

That statement needs qualification, of course. Every extension man has learned the need for qualifying his remarks and in this case I hasten to admit the numerous variations and exceptions to the rule. But granting them, I still believe that "going back" is the surest means by which farm families can move ahead.

The city and the country are different and city living and country living are different. Each has its natural advantages and its disadvantages. Trying to combine all the advantages of both in one home is an unnatural arrangement and is pretty apt to fail.

For example, one of the advantages of the city is that concentrated population makes possible the economical possession and use of city water, electricity, gas, sewer, paved roads, and community amusements. Any or all of these can and have been made available to farm families but the cost of installation and use is always higher. Modern homes and frequent trips to the theater, church, or county fair are just as well earned and needed by rural folks as by city dwellers but they cost the farm people more.

One of the advantages of the country is the atmosphere in which the family lives. Define "atmosphere" both ways and the statement still stands - (1) Fresh breezes and sunshine, in contrast to the shadowed, city canyons filled with thrice-used air, or (2) the clamorous elbowing of unknown neighbors in contrast to the teaming silence of familiar growing things. There are those who prefer the jostle of the crowd, the daily-hourly effort to beat the other fellow to whatever it is they want. But the things that sharpen the wits in social competition dull the perceptions that full living needs. Exceptions? Yes, by the score, but the facts remain and city folks know it too. Gardens, parks, week-end drives, camps and expansive estates all prove man's need for contact with mother nature. City folks can have that contact, too, but country homes cost them more than they do the farmer.

We hear much about the independence and freedom of the farmer's mode of living. May it's so - in part. Farmers have no one to scold them if they are late to work or to cut their pay if they don't reform but they do hear reproachful complaints from full-bagged cows when they oversleep and receive shortened milk checks if they do it frequently.

City business men must eternally "hit the ball" if sales are to be maintained, collections made, and costs kept within due bounds. A farmer's task may not be so driving but did you ever see the grass creep down a neglected corn or cotton row or notice the ripened wheat shatter from the heads while waiting for a tardy binder? Or pitch woody, dusty hay that had been cut some days too late? The job is as inexorable in the country as in the town but there is

more freedom, some kinds of freedom, on the land.

Freedom of choice or of decision is one of the main privileges of the farm - one of the chief advantages of farm life over city life one of the reasons why it takes such an able self-disciplined man to be a good farmer. Freedom of choice is no asset to a man who needs a boss to make him do the proper thing. One of the choices that each farm head must make is to adopt the plan of farming that will make most use of the advantages naturally inherent in farming and to refuse to be handicapped by exhausting efforts to capture all the advantages of the city as well.

One strategic advantage of the farm that the farm head should see and use is that his family can have food regardless of the economic shocks that lower cash receipts. Come boom or depression, come peace or war, farm folks can eat. There is the same food value in a quart of beans, a bushel of potatoes or a pound of meat regardless of its price and farmers have the land, the labor and the skill to produce them.

In town, folks work for wages - that is, they trade their time and effort for cash. Some do right well at it. They earn enough to make available all the advantages of both city and farm that they may need or want. But they are the exceptions. With many city folks, income just about balances outgo when times are good. When wages fall or prices rise or unemployment rears its ugly head, pinch, skimp and do without are the only alternatives for the city man until it's time for charity. His bath tub, his furnace, his nearby movie are of no help now. What he and his family must have is food.

On the farm, food can be available regardless of the vagaries of price fluctuations. Food on the farm need not be a product of income but of forward planning and well-directed energy. Economic tempests can wipe out the bank account but they need not wipe off the dinner table.

In dry areas a garden located below the windmill or at the foot of a dammed canyon can be irrigated in fall and spring, building up effective reserves against possible summer shortages of water. Even protection from grasshoppers is more nearly practical on small food-producing areas.

Of course farm families need cash - cash for many things, from taxes to gasoline. Bad times are tough times for all. When depression strikes, farm folks suffer the same as their city cousins but that suffering need not be in their stomachs.

My sister asked "Should we go back to the wilderness?" My answer again is "Yes". Not back to the coon-skin cap and muzzle-loading rifle but back to some of the principles of that period. The chief law of the wilderness is to depend on yourself and that

must be the chief law of farming. First things come first in the wilderness too, and food is first there as everywhere.

Rescuing the family's $500 food supply from the uncertainties of current income is not the only way to improve the farm situation but it is one of the important ways. The opportunity to adopt and use that method is one of the advantages that farmers have over us who live in town.

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EDUCATION AND CONSERVATION

By David O. Davis[1]

"As a nation we not only enjoy a wonderful measure of present prosperity but if this prosperity is used aright it is an earnest of future success such as no other nation will have. The reward of foresight for this nation is great and easily foretold. But there must be the look ahead, there must be a realization of the fact that to waste, to destroy our natural resources, to skin and exhaust the land instead of using it so as to increase its usefulness, will result in undermining in the days of our children the very prosperity which we ought by right to hand down to them amplified and developed." --Theodore Roosevelt, 7th annual message, December 1907.

It is obvious that education must play a leading part in inculcating the principles of conservation in the minds of the present generation if the principles enunciated by the conservation minded president whose statement is given above are to find reality and to be of benefit to future generations.

It has only been in recent times that the obligation of society to future generations has become of much concern to the general public. Mass action leading toward the fulfilment of that objective, with the exception of that of small groups, has only developed in recent years. Even now the larger movement is just beginning.

Out of the growth of a national feeling in the United States that the conservation of natural resources was of vital importance to both the present and future generations also has come the understanding that to bequeath only that which is wisely used is to bequeath only half of the whole. To the next generation must also go the knowledge of the need for conservation of natural resources and the best known methods of wise use.

It has been said that education is a debt due from the present to the future generations. That concept has been carried through the development of education in this country.

[1]Assistant Information Specialist

During the last 50 years the subject of conservation has been gradually assuming importance as an objective in education. In a few states conservation has been taught in the schools for some time. Generally it has applied only to individual resources, one or two of them at the most. In but very few institutions were the resources of soil and water dealt with in connection with the teaching of conservation, and these institutions were primarily those interested in agriculture.

The tendency in education at the present time is parallel to national thinking regarding the conservation of natural resources, especially resources of the land in terms of soil and water.

More and more educators are becoming convinced that the study of the conservation of natural resources is an essential part of education. They regard it as an integral phase of all sciences. While conservation is particularly necessary in connection with the study of principles of scientific agriculture, it is also of great importance in the entire school curriculum in the development of proper attitudes toward our basic resources. Laws have been passed in a number of states requiring that the conservation of natural resources be taught in schools and colleges. In other states educational groups are revising courses or adding to those being taught.

One problem, probably the greatest, which confronts educators who are contemplating the introduction of conservation courses into the schools or who are considering the expansion of present courses to include conservation, is the discovery of all sources of information and the obtaining of that information in usable form. The national conservation program has grown so rapidly that much of the information dealing with conservation is still in the hands of those who made the investigations and those, upon the land, who have applied the findings in measures to control erosion through wise land use.

One of the responsibilities of the Soil Conservation Service is to develop information in the field of wise land use; the conservation of soil and water resources and flood control. The Soil Conservation Service also has the responsibility of making available, to all educational institutions and all other groups interested in teaching conservation, all authoritative material which can aid in the teaching program.

The Service is definitely not a teaching agency. There is no justification for advising with regard to teaching methods or for attempting to influence the policies which govern established educational systems or individual schools.

The work of the Service in this field is simply informational--supplying material and scientific information on the subject of proper land use to professional educators, curriculum specialists and other specialists who have the responsibility for determining how this information will be used.

The furnishing of information is not limited to agricultural education institutions, but applies to all educational fields. The fundamental objective is to reach future citizens in all groups who are now in schools and whose understanding of conservation will express itself in future national action for the wise use of land resources.

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DISTRICT PROGRESS IN ARKANSAS

The supervisors of the 14 operating Arkansas districts on November 1 had entered into agreements with 2,752 persons who control 379,635 acres, according to a report compiled by Glenn E. Riddell, state coordinator of the Soil Conservation Service for Arkansas.

Riddell also reported that 169 plans for 26,285 acres were being prepared. There were, in addition, 126 farm plans covering 15,838 acres ready for signature by farmers.

The Arkansas districts have received a total of 5,287 applications for assistance.

Eighty educational meetings were held last month, with a total attendance of 4,830 persons. The 63 meetings held with groups of farmers to consider planning and program execution had an attendance of 874 persons.

A committee from the Mine Creek Soil Conservation District reported that landowners of six townships and in parts of two other townships had voted 152 to 1 to have their territory included in the Mine Creek District. The townships involved are Brewer in Pike County; Franklin, Blue Bayou, Blackland, Saratoga, and Saline and parts of Center Point and Buck Range in Howard County.

The district committee forwarded its report to the State Soil Conservation Committee which will consider the inclusion of this territory in the Mine Creek District.

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FARM AND HOME HOUR PROGRAMS

"Land Use in the United States" is the subject of a series of 48 weekly programs being presented each Thursday on the National Farm and Home Hour.

By illustration and dialog, this series is explaining the land use problem and what is being done about it. The exposition of different segments of the problem will be presented in terms of illustrative counties

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PASTURE FERTILIZATION

By W. M. Nixon[1]

Much of the land planned for the development of pastures in the humid parts of Region 4 is steep, badly eroded and in general, low in fertility.

The fertility level must be increased if it is expected that this land will support a vigorous growth of desirable vegetation, which will effectively control erosion and provide the greatest amount of desirable forage for livestock. This can best be accomplished by the application of barnyard manure or commercial fertilizer.

Few farmers in the Coastal Plains sections plant cotton without applying fertilizer. The same practice is followed in connection with the growing of other cash crops. Pastures should be regarded in the same light and should be given the same careful attention that is bestowed on other crops.

Annual applications of 200 to 300 pounds of superphosphate on a Bermuda and clover pasture at the Hope, Arkansas Fruit and Truck Branch Experiment Station increased the forage to such an extent that it was possible to produce more than 400 pounds of beef per acre on this pasture. The pasture produced higher cash returns than a similar investment in fertilizer applied to cash or cultivated crops.

It is more economical for the average farmer to supply the necessary nitrogen for pasture grasses by the growing of legumes such as white, Persian, hop or bur clovers and lespedeza, but most pastures also need the addition of commerical fertilizers to supply other elements.

Fertilization is one of the major points to be considered when planning for pasture establishment or improvement. Other points include sodding, seeding, mechanical measures for soil and water conservation, weed and brush control and controlled or regulated grazing.

A review of cooperative agreements shows that only in a few instances have farmers agreed to fertilize any of their pasture acreage, although they have agreed to apply the other treatments. It is believed that the use of fertilizers on pastures should be given greater emphasis and an effort made to get all cooperators (in areas where it has been shown to be a profitable practice) to fertilize at least one or more acres of their pasture.

[1]Associate Agronomist

The average farmer cannot afford to fertilize all of his pasture in one season. Complete treatment should be applied on a small area instead of giving incomplete treatment to a large area. When the farmer sees for himself the results that have been obtained from the application of fertilizer he will be encouraged to apply this treatment, gradually, to a larger acreage.

If the farmer is expected to leave in pasture that land which is not suited for cultivation, he must be encouraged to treat it so that he can provide an effective vegetative cover to control erosion and can realize the greatest possible return from the land so utilized.

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YEARBOOK TITLES ANNOUNCED

"Food and Life", the 1939 yearbook of the United States Department of Agriculture, is being printed, according to an announcement by the yearbook committee. The book deals with a study of the food needs for both man and animals.

The theme of the 1940 yearbook will be "Farmers in a Changing World", and the tentative title chosen for the 1941 yearbook is "Climate and Man".

Each of the recent yearbooks of the Department has dealt with a single broad field of research and action of major importance in the work of the Department. They have consisted of separate contributions on a central theme, which can be absorbed piecemeal by the reader.

The 1940 yearbook, like those in other years, will be for two classes of readers--the intelligent farmer with a practical background but in most cases little theoretical knowledge, and students, teachers, and scientific workers in need of more technical information than the first group.

The effects of a "changing world" upon the economic and social problems of the farmers will be presented in the 1940 yearbook. Adaptation of the farmer to these changes through conservation, adjusting production and demand, solving problems in the agricultural marketing field, and in the fields of credit, insurance, and taxation are subjects which have been assigned for an unbiased discussion, giving full consideration to alternative solutions and opposing viewpoints, according to the yearbook committee.

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FACTORS IN DETERMINING PROPER USE OF GRAZING LAND

(This article is a summary of a paper written by A. B. Nielson for the Regional Grass School, Soil Conservation Service, Region 11. The summary was prepared by H. M. Bell, Acting Regional Range Examiner.)

If full benefits of a soil and water conservation program on range land are to be expected proper grazing use must be practiced. It is very easy to destroy all of the beneficial results from conservation measures in one single season if improper use is made of the area. There are four factors of paramount importance in the proper use of forage plants by grazing livestock. They are: (1) intensity of grazing, (2) the proper time or season of use, (3) proper and even utilization of all forage, and (4) the maintenance of adequate reserve and residue to provide for unfavorable seasons and to minimize erosion problems.

In order that these principles of use may be followed, much thought and study is necessary to determine what the requirements are for each different locality. To come to any definite conclusion it will be necessary to study the natural local determining factors of plant growth, such as soils, slopes, exposures, annual precipitation and degree of erosion along with the stage of plant regression. From such studies it will be possible to determine fairly closely the intensity and periods of use of the past and to what degree and rate recovery can be obtained in the future under proper management and use. These determinations will be different, sometimes within relatively small areas, but the same principles will apply.

The critical periods in grazing for each area should be determined and included in recommended use practices. Such periods should be recognized from (1) the plant standpoint, and (2) from the erosion standpoint. It should be kept in mind that growing plant leaves are the factory where plant nutrients are prepared. Repeated removal of these leaves during the growing season destroys this factory, thereby robbing the plant of needed nourishment. Plants that do not fully develop are weakened, their total density or forage production is reduced, few if any viable seed are produced, and such plants cannot compete with other vegetation. Early spring grazing before range readiness and overgrazing are the management factors that are most contributory to critical grazing periods. In addition to these factors grazing when soil is too wet, excessive trampling, the wrong class of livestock thereby encouraging selective grazing, and concentrated grazing are other factors that determine critical periods of use.

When range and pasture recommendations are made on the basis of these, and possibly other factors common to individual areas, the proper use of that range or pasture should be determined.

Observations and tests in the proper use of range land indicate these trends.

1. Proper intensity and seasons of use can increase the carrying capacities of approximately 82 percent of our western range.

2. Studies made at Pomeroy, Washington, show that the carrying capacities of grass ranges have increased 50 to 60 percent under two years of proper management.

3. Ranges in southern Idaho show that the degree of depletion on four ranges approximately was directly proportional to the intensity of spring grazing, reducing the grazing value from 20 to 65 percent in nine years.

4. Fall grazing alone increased the forage yield 15 percent as determined by the U. S. Forest Service Experiment Stations.

5. A nine year study carried on in Colorado shows that rotational grazing increased the number of bunch grass stalks 53 percent as compared with continuous use.

6. The binding power of root systems is greatly reduced on ranges where grasses are replaced by less desirable plants. (From U.S D.A. Farmers Bulletin, No. 1773) "The fibrous roots of bunch grasses penetrate downward into the soil 40 to 60 inches and spread outward 15 to 30 inches. Plants three inches in diameter at the crown sent out 250 to 400 fine roots which describe a network throughout the soil they occupy. In addition, the total length of the short rootlets is about three times the total length of the main roots. Some roots die each year, adding organic matter to the soil and producing small passages for water to enter." On the contrary, the undesirable plants have root systems much less effective in binding the soil.

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NEW TIME FOR WLW PROGRAM

"Fortunes Washed Away", the dramatized radio broadcast which has gone out over the air via WLW, Cincinnati, for nearly two years, has changed time. These dramatizations of true-life experiences in soil conservation now are heard at 12 noon, CST, each Saturday.

"Fortunes Washed Away" is prepared by the Soil Conservation Service of the United States Department of Agriculture. It has been one of the most popular radio programs prepared by the Service. Mail concerning the series has been received from 33 states.

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PROGRESS OF OKLAHOMA DISTRICTS

Eighteen Oklahoma soil conservation districts had entered into 1,268 cooperative agreements covering 220,697 acres on November 1, Leo S. Wortman, state coordinator for the Soil Conservation Service, reported.

At that time, the Verdi-Grand District, the nineteenth in Oklahoma to enter into a memorandum of understanding with the United States Department of Agriculture, was preparing its first agreement.

Wortman said that farm plans were being prepared on 286 farms embracing 53,537 acres. In addition, 44 farm plans, for 5,941 acres, had been completed and presented to the farmers for signature.

Applications for assistance had been filed by 3,505 persons on November 1.

During October, 41 educational meetings were held in the 19 Oklahoma districts and attracted an attendance estimated at 2,400 persons. Thirteen meetings were held with groups of farmers to discuss planning and program execution. These conferences were attended by a total of 134 land owners or operators.

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DISTRICTS TOTAL 201

A total of 201 districts, covering 113,097,684 acres in 26 states had been created on October 15, according to a compilation by J. Phil Campbell, assistant chief of the Cooperative Relations and Information Division.

Districts were being organized in three other states, including Texas. In Texas, the report said, 62 petitions for soil conservation districts had been accepted by the State Soil Conservation Board, and the board had determined that 29 districts were needed. On October 15, according to Campbell's compilation, the Texas board had listed no proposed districts as "not needed."

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DISTRICT PROGRESS IN LOUISIANA

The eight soil conservation districts in Louisiana had entered into agreements with 832 farmers owning 160,802 acres on the first of November, Guy Fletcher, state coordinator for the Soil Conservation Service, reported.

At that time, the districts were preparing plans for 152 additional farms with a total of 32,305 acres.

Since the beginning of the district program in Louisiana, 2,812 persons controlling 605,699 acres had applied to the districts supervisors for assistance in establishing complete erosion control systems.

In October, 48 educational meetings, which attracted 1,777 persons, were conducted in the Louisiana districts.

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PROGRESS SUMMARY

A comparison of reports from Arkansas, Louisiana and Oklahoma districts and from the Division of Physical Land Surveys disclosed that on November 1 the districts had agreements completed and farm plans in process of preparation on a total of 895,040 acres and that conservation surveys had been completed on 5,178,880 acres in the three states.

These figures, by states, are as follows:

	Agreements Accepted (Acres)	Farm Plans In Process* (Acres)	Conservation Surveys (Acres)
Arkansas	379,635	26,285	2,313,600
Louisiana	160,802	32,305	598,400
Oklahoma	220,697	59,478	2,266,880
Totals	761,134	133,906	5,178,880

*Includes also acreage in agreements completed and presented to the farmer for signature, but which on November 1 had not been signed.

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SOIL CONSERVATION SERVICE
OFFICE OF THE REGIONAL CONSERVATOR
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OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE TO AVOID
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